

Water Treatment and Supply

Services, Drivers and Priorities

Reliable water service provides the foundation to a healthy and green city. As Calgary's population continues to grow, so does the demand on the rivers. With a finite supply of water, the Water line of service needs to operate wisely, considering future water demands. Due to water conservation measures embraced by Calgarians, the line of service has been able to delay investments in treatment capacity and defer costly plant upgrades. These actions have resulted in our ability to keep rates low for customers.

Water conservation efforts aim to reduce water consumption and are important to ensure long term water supply reliability. However, the Water line of service must continue to look for ways to mitigate the upward pressures that lower per capita consumption places on revenues and financial sustainability. In response, the line of service has identified effective cost reducing methods through proactively relinquishing capital investments, continuous innovation, and efficiency opportunities to help offset additional inflationary pressures.

The focus on protecting public health by providing clean and safe drinking water continues to be The Water Utility's most important priority. The Water line of service is either currently working on, or will undertake, the following projects:

- **Lead Mitigation**
To address the public health risk posed by lead water services, and from pipes and plumbing inside the home, The Water Utility is implementing an updated lead mitigation strategy. A central component of this strategy is the accelerated removal of the remaining lead service lines. The capital cost for the replacement of verified public and private lead water services is estimated to be up to \$14 million. The total recoveries from all homeowner however would be up to \$2.5 million. Apart from the capital requirement, additional resourcing will be required to conduct accelerated removal of remaining lead service lines, including managing the replacement contracts, working with individual homeowners to address their unique circumstances, and conducting required water quality sampling.
- **Potential Reintroduction of Fluoride**
The Water Utility is in the process of estimating the cost of re-introducing fluoride to Calgary's drinking water. This estimate was requested by Council and is scheduled to be presented on 2020 December 16. The costs for this project are not included in the current capital plan for 2021 and 2022.
- **Water Loss**
Performance indicators have suggested increasing trends in water loss in Calgary's distribution network. Preliminary investigations indicate that this water loss is significant and requires attention. A strategy is currently underway to validate the amount of leakage, develop recommendations to address this issue, and determine a resource plan to support the recommendations.

The Water line of service is currently in a good financial position with a favourable variance to the operating budget due to efficiencies and fleet optimization, a moderate capital program, declining debt, and decreasing interest expense. This combination enables the Water line of service to absorb inflationary pressures and adverse fluctuations in off-site levies for growth-related costs.

The proposed 2021-2022 capital spending plan is higher than the average investment of \$89 million annually due to the capacity increasing work on Ogden and Lower Sarcee feeder mains, and services for new growth communities,

Figure 1: Capital Spending Plan

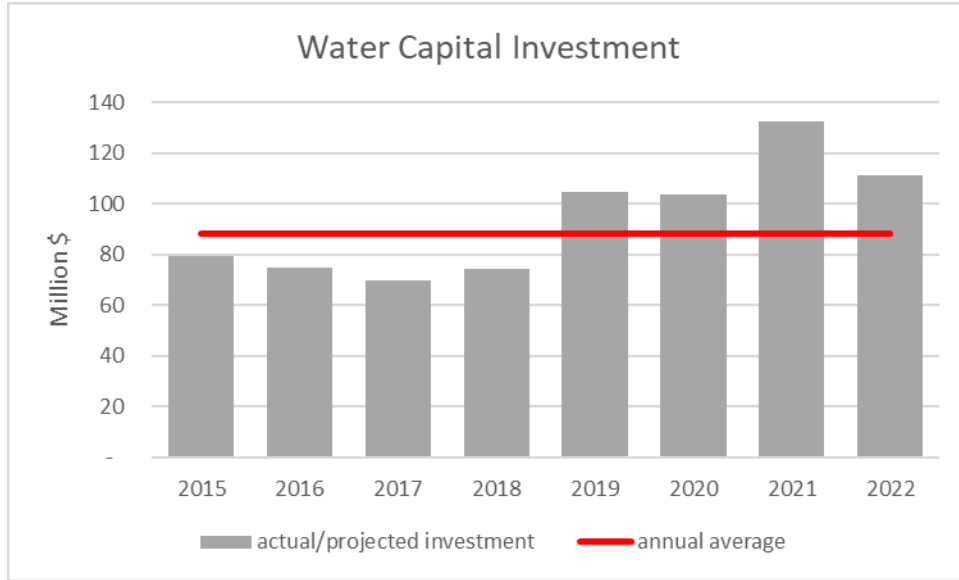
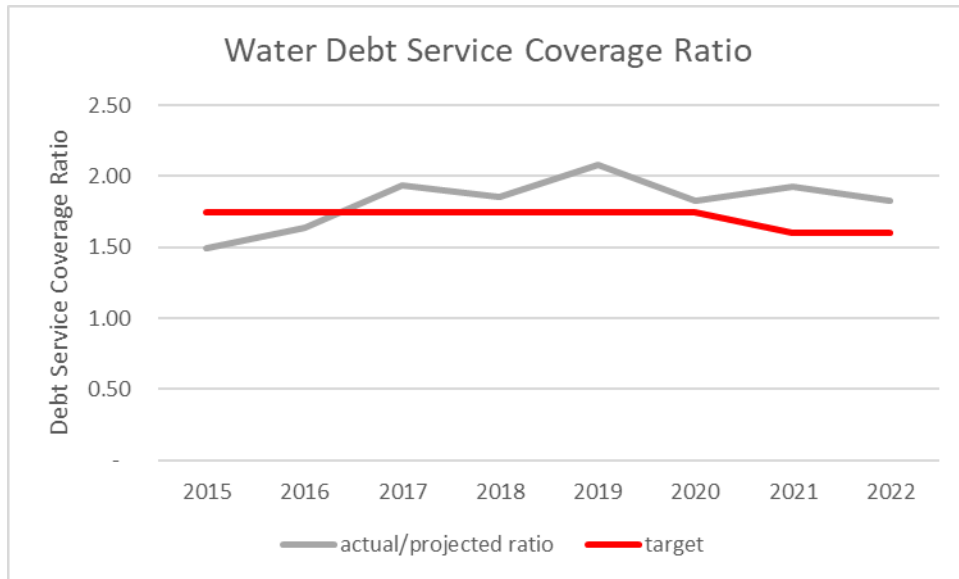
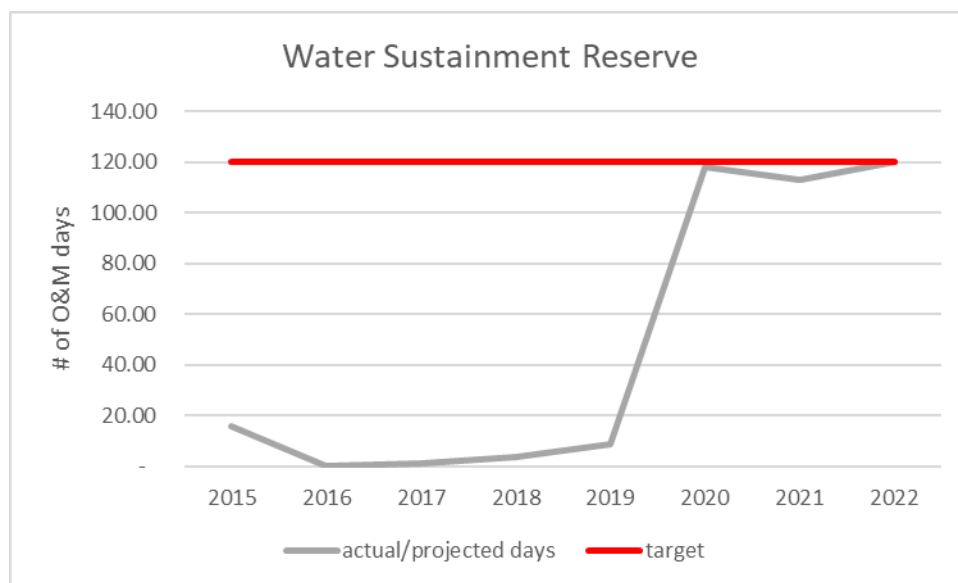


Figure 2: Debt Service Coverage Ratio



The Water line of service remains on track to achieve its sustainment reserve target by the end of 2022.

Figure 3: Sustainment Reserve Balance



Water Rates

Based on these considerations, the Water line of service can accommodate the recommended rate reduction of 1.3 per cent with minimal impact to service levels. A reduction in the 2021 and 2022 water rates from that previously approved as part of One Calgary will result in a \$2.99 savings per month by 2022 to the water portion of the residential customers' typical monthly utility bill compared to 2020.

The tables below summarize previous reported and current proposed water rates and drivers for 2021 and 2022.

Table 1: Water rate change

	One Calgary Approved 2021 & 2022	Proposed Change	Revised 2021 & 2022 Recommended Rates
Water rate change	+0.3%	-1.3%	-1.0%

Table 2: Estimated Water Treatment and Supply drivers / impacts

WATER	Total	Change in operating costs	Change in capital related costs	Off-site levy shortfall	Contribute to sustainment reserve	Transition to ROE
Impact on typical residential metered monthly utility bill \$44.07 in 2020	-1.0%	1.0 %	-0.3%	-0.2%	0.0%	-1.5%

Based on the cost of service recommendations, not all customer will see the same increase or decrease in rates. As shown in Table 3, a typical residential metered customer will see a decrease to the monthly Water charges of approximately \$2.99 by 2022 compared to 2020. However, because the impact for each customer class does vary, multi-family and business customers will see different increases to their respective monthly bills.

Table 3: Impact on typical monthly utility bill

Line of Service	2020 monthly bill	2021 incremental change	2021 monthly bill	2022 incremental change	2022 monthly bill
Residential Metered (19m ³)	\$44.07	(\$1.65)	\$42.42	(\$1.34)	\$41.08
Multi Family Metered (584m ³)	\$915.60	(\$44.68)	\$870.92	(\$39.98)	\$830.94
General Service Regular (400m ³)	\$595.29	(\$3.68)	\$591.61	(\$0.61)	\$591.00
General Service Large (10,365 m ³)	\$14,113.15	\$110.34	\$14,223.49	\$182.56	\$14,406.05